

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims

1-13. (canceled)

14. (currently amended) A device for vapor deposition of vertically aligned regions of a substrate, comprising:

- a melting crucible having a crucible heater for melting and vaporizing material poured into the melting crucible;

- an elongate nozzle pipe placed from above the melting crucible for deflecting the vapor flowing out of the crucible horizontally toward the substrate, the nozzle pipe comprising:

- a lateral surface;

- a horizontal vapor outlet defined by a plurality of holes ~~therein~~ in the lateral surface; and

- a pipe heater which is independent of the crucible heater;

- a plurality of reflectors concentrically enclosing the nozzle pipe, the reflectors comprising a vapor passage window in the region of the vapor outlet; and

- a vaporizer housing externally enclosing the reflectors, the vaporizer housing comprising:

- a plurality of external cooling pipes extending substantially the elongate length of the nozzle pipe, wherein at least a portion each of the external cooling pipes is positioned substantially parallel to a longitudinal axis of the elongate nozzle pipe; and

- an exhaust opening, wherein the exhaust opening is in the region of the vapor passage window and the vapor outlet.

15. (previously presented) The vapor deposition device of Claim 14, further comprising a temperature sensor in the region of the melting crucible and a temperature sensor in the region of the nozzle pipe for regulating the output of the crucible heater and the pipe heater, respectively.

16. (previously presented) The vapor deposition device of Claim 14, wherein the nozzle pipe engages the melting crucible with a diameter taper on its lower end.

17. (previously presented) The vapor deposition device of Claim 23, wherein the nozzle pipe further comprises a taper shaped like a truncated cone on its upper end and wherein the sealing mechanism is a plunger, having an adjustable height for selective engagement with the coaxial filling opening from above.

18. (previously presented) The vapor deposition device of Claim 14, wherein the cooling pipes are aligned in a meander shape in the region of the nozzle pipe and have long pipe sections running in a lengthwise direction along the vaporization device, the cooling pipes are alternately connected to one another above and below by a short pipe section in each case.

19. (previously presented) The vapor deposition device of Claim 14, wherein the cooling pipes lead in a spiral shape around the vaporizer housing in the region of the melting crucible.

20. (previously presented) The vapor deposition device of Claim 14, wherein the vapor outlet in the nozzle pipe is formed by multiple holes positioned over one another.

21. (previously presented) The vapor deposition device of Claim 14, wherein the melting crucible and the nozzle pipe are made of graphite.

22. (previously presented) The vapor deposition device of Claim 14, wherein the nozzle pipe is heated a predetermined temperature gradient above the temperature of the crucible and wherein the predetermined temperature gradient is about 200 degrees Celsius.

23. (previously presented) The vapor deposition device of Claim 14, further comprising a coaxial filling opening positioned substantially on an upper end of the nozzle pipe and a sealing mechanism positioned above the filling opening for selective sealing of the filling opening.

24. (previously presented) The vapor deposition device of Claim 14, wherein the material is metallic.